MICROBOARDS® Technology

CWT Pro Series

Tower and Rackmount

Users Manual

www.microboards.com

Version 2.4

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System Overview

The CWT Pro Series includes the Tower and the Rackmount styles. The Tower employs up to 10 General Purpose CD recorders, while the Rackmount employs up to 4 recorders. The hard drive comes standard with the Pro system and allows for CD image archival and CD track extraction for CD audio compilations.

An intuitive, menu driven display and 5-button control interface provide one-touch operation for the novice user while providing advanced features for the professional.

Advanced Features:

- Stand-Alone CD-R duplicator
- One Touch duplication
- Auto Run option
- Speed selectable (4x to 52x for CD-R)
- Supports writing to CD-R/RW
- Copy and Verify
- Hard drive comes standard for standalone CD image archival and CD track extraction for audio compilation CDs
- Store multiple hard drive images
- Counter feature allows the user to input how many discs need to be copied and the keeps track of the total discs completed.
- Simulation mode to ensure recording stability
- Easy-to-read, two-line display for status and error reporting
- Updates easily installed through CD reader

Unpacking your system

When unpacking your duplicator, confirm the following items are included:

- CWT Pro Series duplicator
- Power cable
- Starter Kit (includes Manual and Warranty information)

If any of these items are missing, please contact or Microboards Technology Technical Support at 952-556-1639.

IMPORTANT: Please keep all the packing for your CWT Pro Series duplicator. If your unit ever needs to be sent in for service, it must be returned in the original packing or the warranty will be voided.

Microboards Statement Regarding Improper Duplication

Microboards Technology fully supports the right of any business, organization, group, or individual to protect their property from unlicensed, unauthorized, or illegal duplication.

As a user of our equipment, we expect you to support that right as well.

Microboards Technology is neither responsible nor liable for the infringement of any laws regarding the illegal duplication of property. Microboards Technology products are in no way intended to encourage or condone such duplication.

Installation Requirements

System Setup

- Connect the power cable to the CWT Pro Series tower and plug in to a protected power outlet strip or UPS power supply.
- Turn on power to the tower. The system is now ready to use.

Install your CWT Pro Series duplicator in the following environment:

- On a level and stable surface
- In a well ventilated location
- Temperature and humidity
- Temperature: 5-40°
- Humidity: 20-80%RH (no dew formation)

Do not install it in the following places:

- Under direct sunlight (If the machine is exposed to sunlight, the light should be blocked by a curtain or blind.)
- A dusty location
- A place where there is a lot of vibration
- Near open flame
- A place where the temperature and humidity change drastically
- Near a heating device such as a heater or furnace
- A location where air from an air conditioner blows directly onto the unit
- Near a container filled with water

In winter during times of low humidity or in a location where static electricity is generated, use an anti-static-electricity mat or humidifier to prevent static electricity.

Power supply

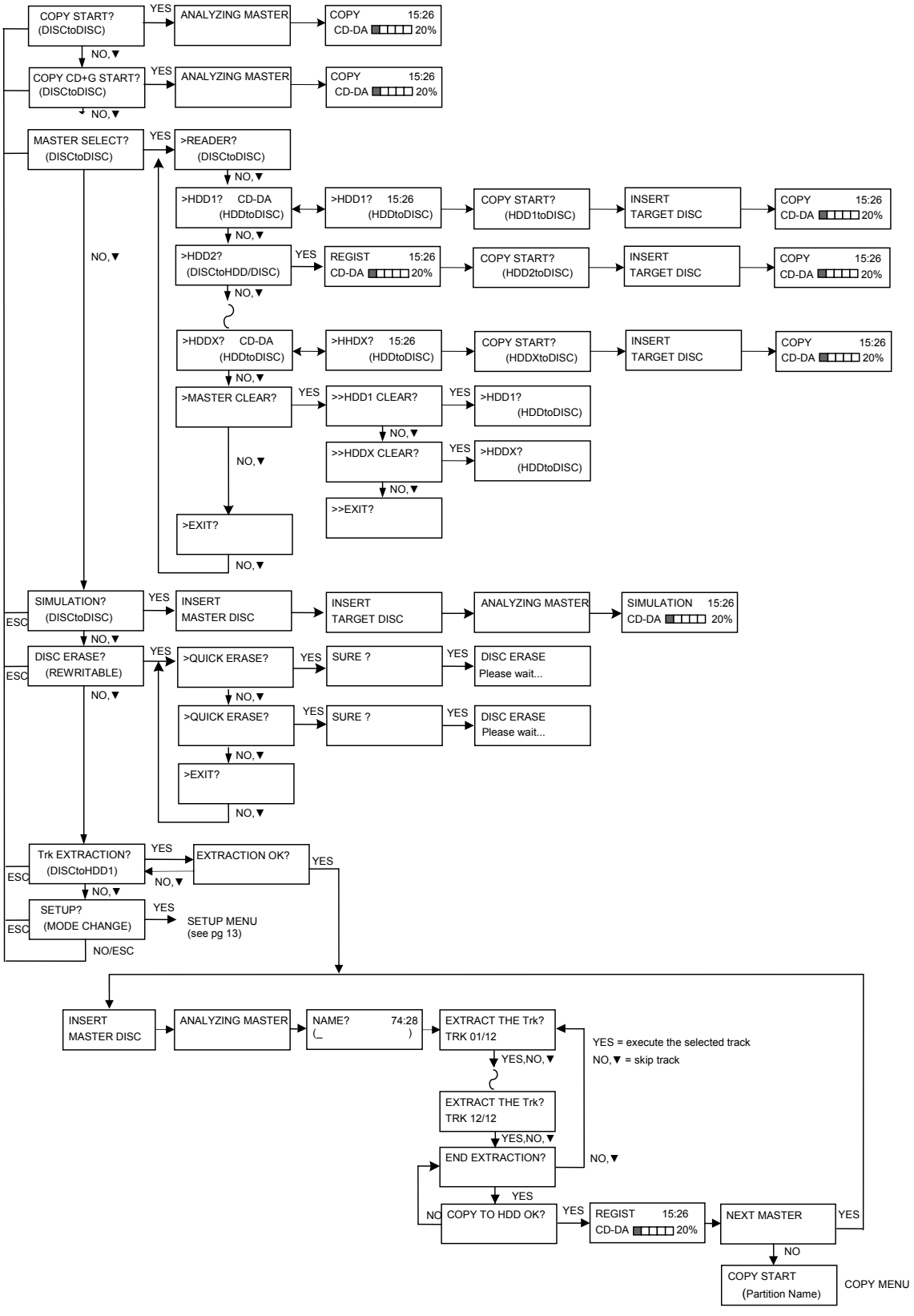
- Use house current as the power source for the unit.
- Do not use an outlet near a motor driven appliance (i.e. air conditioner, copying machine).
- Use an outlet with stable power supply voltages.
- Do not overload an outlet. Do not use a service outlet from a PCs or other office machine.
- Wire the power cord properly.
- Do not touch the power cord with a wet hand.
- Be careful not to damage the power cord.

Inspect the power cord periodically. In the event that the power cord is damaged, replace the power cord.

Be sure to use a tool such as the screwdriver to change the 115/230V Switch. Do not use your finger.

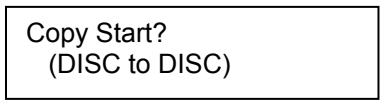
Main Menu

The Arrow buttons (▼▲) allow you to move forward or backward in the menu without selecting the current menu item. The NO button will move you to the next menu item. YES will select the current menu item.

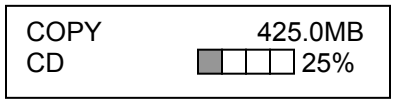


Copy Disc to Disc

1. Place the Master Disc into the Reader drive.
   Place the blank disc(s) into the Recorder drive(s) and wait 10 seconds for the light(s) on the front of the Recorder(s) to stop blinking.
2. The display reads COPY START? (DISC to DISC).



3. Press YES. If you have the Auto Run feature set to ON, the duplication will begin when the master is loaded and all drives are loaded with blank media.
4. The drive trays will open on any recorder without blank discs installed. If you do not want to make a copy in those drives, close the tray(s), wait for the drive light to go out, and then press the YES button to start the copy job.
5. The display will now show the progress of the Copy Job.



6. The Recorder(s) will eject the recorded discs when the job is complete.

Copy CD+G

Use this menu to copy CD+G discs in Disc to Disc mode only. CD+G Masters cannot be saved to the hard drive.

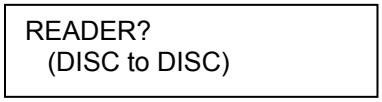
Follow the steps listed in the **Copy Disc to Disc** section above.

Registering Data to the Hard Drive (HDD)

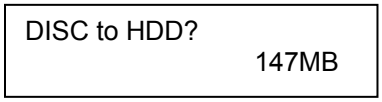
When registering data to a partition on the internal hard drive, you do have the option of recording to the blank media as well. In the SETUP menu, go to “Copy DISC to HD/DISC” and change the setting from OFF to ON. This will allow the data from the master disc to be copied to the internal hard drive, as well as any blank discs you have in the recorders. See page 19 for a description of the SETUP menu.

1. At the COPY START? (DISC to DISC) menu, press the NO or ▼ button until the display shows MASTER SELECT? (DISC TO DISC)

2. Place the Master disc into the Reader drive.
3. Press the YES button.
4. The display will show:



5. Press the NO or ▼ button
6. The display will now show:

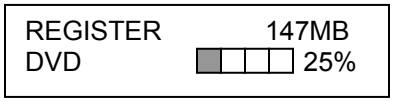


The number in the lower right corner of the display indicates the amount of free space remaining on the hard drive.

7. You will see this screen after the contents of the master have been analyzed:

If you do not have the Auto Generate in the Setup menu feature turned on, use the ▲or ▼buttons to change the character in the position shown by the cursor. Press the YES button to move the cursor to the right or NO to move back to the left. Once the cursor is on the 14th character, press YES to begin registering the master.

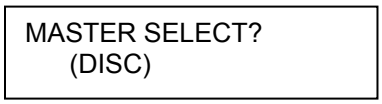
8. The display will now show the progress of the data being transferred to the hard drive:
9. Once the Master disc has been copied to the HDD, the Reader drive will eject the disc. When you go back into the MASTER SELECT? Menu, and select a partition with data stored on it, the display will show the type of data (ROM or Video) and the capacity of



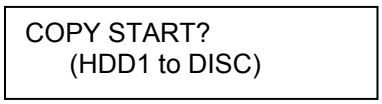
that data. Proceed to COPY HDD TO DVD section.

Copy Hard Drive (HDD) to Disc

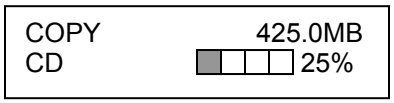
1. Follow the instructions on page 9 to register the Master to the HDD.
2. Press to NO or ▼ button until the screen displays



3. Press the YES button.
4. The display will show READER.
5. Press the NO or ▼ button and the display will show the first partition. If this is the hard drive partition you wish to copy, press the YES button.
6. The screen will display the partition name selected; in the example below, the partition was named HDD1.



7. If you wish to select a different hard drive partition, press the NO or ▼ button in step 5, unit the display shows the partition you wish to copy.
8. Place the blank disc(s) into the Recorder(s) and wait 10 seconds for the light(s) on the front of the Recorder(s) to stop blinking.
9. Press the YES button. If you have the Auto Run feature set to ON, the duplication will begin when all drives are loaded with blank media.
10. The drive trays will open on any recorder without blank discs installed. If you do not want to make a copy in those drives, close the tray(s), wait for the drive light to go out, and then press the YES button to start the copy job.
11. The display will now show the progress of the copy job from the HDD to the Recorder(s):

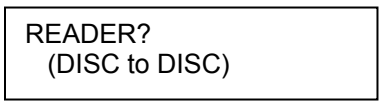


12. After the Copy job is complete, the disc(s) will be ejected from the Recorder(s).

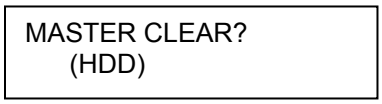
Clearing the Hard Drive (HDD)

The Master Clear option will not appear if there is no information stored on any of the hard drive partitions.

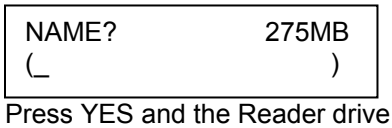
1. At the COPY START? (HDD1 to DISC) menu, press the NO or ▼ button until the display shows MASTER SELECT? (HDD1 to DISC).
2. Press the YES button.
3. The display will show:



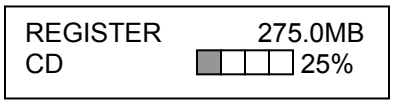
4. Press the NO or ▼ button until you the screen displays MASTER CLEAR? (HDD):



5. Press the YES button
6. You can now select which hard drive partition to erase. Pressing the NO or ▼ button will scroll you though the partition selections.
7. Press the YES button if you are sure you want to clear the HDD.
8. The hard drive will now be cleared and you will be asked if you want to register another master to the HDD.



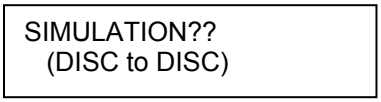
9. Press YES and the Reader drive will eject and you can insert another master to register to the HDD.



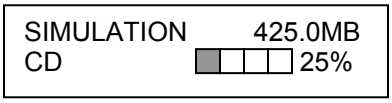
10. Press NO and to exit this menu without registering data to the hard drive partition.

Simulation Disc to Disc

1. At the COPY START? (DISC to DISC) menu, press the NO or ▼ button until the display shows SIMULATION? (DISC to DISC).



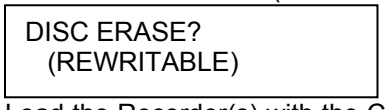
2. Place the Master Disc into the Reader drive
3. Place the blank disc(s) into the Recorder drive(s) and wait 10 seconds for the light(s) on the front of the Recorder(s) to stop blinking.
4. Press YES.
5. The drive trays will open on any recorder without blank discs installed. If you do not want to make a copy in those drives, close the tray(s), wait for the drive light to go out, and then press the YES button to start the copy job.
6. The display will now show the progress of the Simulation Copy Job



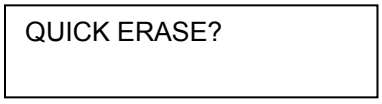
7. The Recorder(s) will eject the still-blank discs when the job is complete.

Erasing RW media

1. At the COPY START? (DISC to DISC) menu, press the NO or ▼ button until the display shows DISC ERASE? (REWRITABLE):



2. Load the Recorder(s) with the CD-RW media you wish to erase. You can erase one disc at a time or fill all the Recorders to erase multiple discs at once. All discs loaded must be of the same type.
3. Press the YES button
4. The next screen asks if you want to perform a Quick Erase.



If you wish to perform a Full Erase, press the NO button.

FULL ERASE?

Pressing the YES button at either of these selections will show the following screen:

SURE?

5. Press the YES button if you are sure you want to erase the RW disc. If you do not wish to erase the disc, press the NO button and you will go back to the DISC ERASE screen (step 1).
6. The screen will now show:

DISC ERASE

7. Once the erasing is complete, the Recorder(s) will eject the disc(s).

Track Extraction

When extracting tracks to the internal hard drive, the DVD Premium Pro Series will use the next available partition space on the hard drive. Like any time a master is registered to the hard drive, you have the ability to name the partition.

1. At the COPY START? Menu, press the NO or ▼ button until the display reads:

Trk EXTRACTION? (CDtoHDD)

Press the YES button.
2. Press YES again in the following screen.

EXTRACTION OK?

3. You will see this screen after the contents of the master have been analyzed:

NAME? 79:28 (_)

If you do not have the Auto Generate in the Setup menu feature turned on, use the ▲or ▼buttons to change the character in the position shown by the cursor. Press the YES button to move the cursor to the right or NO to move back to the left. Once the cursor is on the 14th character, press YES to begin registering the master.Insert a master audio disc into the reader drive. CWT Pro Series will analyze the master disc.
4. Next, it displays Selected Track Number / Total Track Number.
This master data has total 12 tracks.

EXTRACT THE Trk? TRK 01/12

Press NO or ▼ to skip forward a track.
Press YES to select the track you want to extract.

5. If you skip forward all tracks, it asks if you want to end extraction for the master data.

END EXTRACTION?

Press YES to finish extraction and register selected tracks in HDD.
Press NO or ▼ to add more tracks from this master data.

6. If you press YES in step 5, the CWT Pro Series asks you to register the extracted tracks in HDD.

COPY TO HDD OK?

   Press YES to start registration.
7. After registration completes, the CWT Pro Series asks you if you want to extract more tracks from other master audio discs.

NEXT MASTER

   Press YES to extract more tracks from other master audio discs.
   Press NO to complete extraction.
8. If you press NO, the CWT Pro Series moves back to COPY menu so that you can copy the extracted tracks in HDD to blank CD-R media.

COPY START (HDD to DISC)

Error status in Track Extraction:

In the following situation in TRACK EXTRACTION, the CWT Pro Series shows an error status on the LCD.

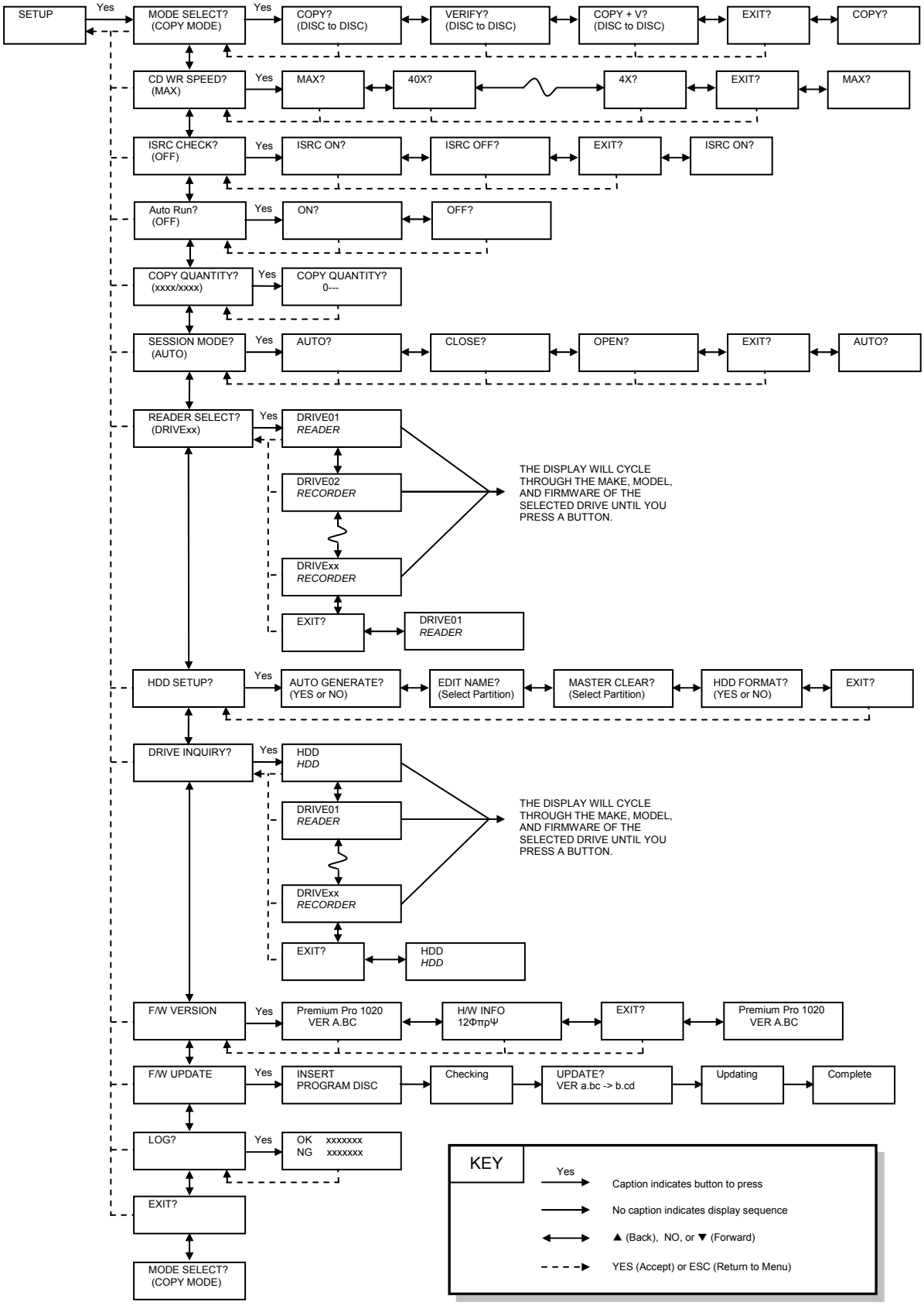
1. If you try to extract a track which is not CD-DA, the track number does not display properly, showing "—". Pressing the YES button will not add the track.

EXTRACT THE Trk? --/12

2. If the total time of extracted audio tracks is over 80 minutes or 99 tracks have already been selected, the CWT Pro Series displays OVER. Pressing the YES button will not add the track.

EXTRACT THE Trk? 06/12 OVER

Setup Menu


SETUP
Yes
MODE SELECT? (COPY MODE)
COPY? (DISC to DISC)
VERIFY? (DISC to DISC)
COPY + V? (DISC to DISC)
EXIT?
COPY?
CD WR SPEED? (MAX)
MAX?
40X?
4X?
MAX?
ISRC CHECK? (OFF)
ISRC ON?
ISRC OFF?
EXIT?
ISRC ON?
Auto Run? (OFF)
ON?
OFF?
COPY QUANTITY? (xxxx/xxxx)
COPY QUANTITY? 0---
SESSION MODE? (AUTO)
AUTO?
CLOSE?
OPEN?
READER SELECT? (DRIVExx)
DRIVE01 READER
DRIVE02 RECORDER
DRIVExx RECORDER
THE DISPLAY WILL CYCLE THROUGH THE MAKE, MODEL, AND FIRMWARE OF THE SELECTED DRIVE UNTIL YOU PRESS A BUTTON.
HDD SETUP?
AUTO GENERATE? (YES or NO)
EDIT NAME? (Select Partition)
MASTER CLEAR? (Select Partition)
HDD FORMAT? (YES or NO)
DRIVE INQUIRY?
HDD HDD
F/W VERSION
Premium Pro 1020 VER A.BC
H/W INFO 12ΦπρΨ
F/W UPDATE
INSERT PROGRAM DISC
Checking
UPDATE? VER a.bc -> b.cd
Updating
Complete
LOG?
OK xxxxxxx
NG xxxxxxx
KEY
Caption indicates button to press
No caption indicates display sequence
▲ (Back), NO, or ▼ (Forward)
YES (Accept) or ESC (Return to Menu)

Setup Menu

1. At the COPY START? (DISC to DISC) menu, press the NO or ▼ button until the display shows SETUP? (MODE CHANGE)

SETUP? (MODE CHANGE)

2. Press the YES button.
3. The first setup option is Mode Select, followed by Copy DISC to HD/DISC, Write Speed, ISRC Check, Copy Quantity, Session Mode, Drive Inquiry, Firmware Version and Exit.
4. Pressing the NO or ▼ button will allow you to move from menu to menu.
5. Pressing the YES button will allow you to view or change the configuration of the system.
6. Please follow the flow chart on page 12 to navigate through the different menus.

Here is a description of each setup menu item:

Mode Select

COPY - Duplication from master disc to blank disc, or HDD to blank disc if master data is registered.
VERIFY - It compares a copied disc with the master disc.
COPY+V - Copying in the COPY+VERIFY mode

CD WR Speed

Available speeds range from 52x down to 4x.

ISRC Check

Default setting is ON. This feature will copy the ISRC codes from the Master audio disc to the blank discs.

Auto Run

Default setting is OFF. When set to ON, this allows the duplicator to start the duplication process when all recorders are loaded with blank media. If you are copying Disc-to-Disc, the master must be loaded before duplication will begin.

Copy Quantity

Set up the number of disc you want to copy.
Use the ▼▲buttons to change the number in the current column up or down. YES will move you one column to the right, NO will move you 1 column to the left. Press YES when in the right column to save the number of copies entered. The example above shows that 750 copies have been entered with the cursor currently in the right column (underlined).

>>COPY QUANTITY 0750

Session Mode

Select either from AUTO, CLOSE, or OPEN.
AUTO: Make the session of copied disc as same as the master.
CLOSE: Close the session of copied disc.
OPEN: Leave the session of copied disc open.

Reader Select

Changes which drive is selected as the reader. This setting should not be changed.

HDD Setup

Access to the Hard Drive maintenance functions.

Auto Generate
This option will create Hard Drive partition names for you automatically if ON is selected. When OFF is selected, the user will need to name each partition added.

Edit Name
This option will allow you to modify partition image names (See pages 8-9).

Master Clear
This option will allow you to remove specific hard drive partition images.

HDD Format
This option will completely erase all hard drive partition images.

Drive Inquiry
Displays an inquiry of each drive connected, showing drive model and firmware.

F/W Version
Shows CWT Pro Series firmware version and H/W information.

F/W Update
Used when updating the firmware of the CWT Pro Series duplicator.

Log
Displays the number of successful and unsuccessful discs over the entire life of the duplicator.

Error Codes

Read Errors

ASC	ASCQ	Description
00	00	NO ADDITIONAL SENSE INFORMATION
00	06	I/O PROCESS TERMINATED, PLAY OPERATION ABORTED
00	11	AUDIO PLAY OPERATION IN PROGRESS
00	12	AUDIO PLAY OPERATION PAUSE
00	13	AUDIO PLAY OPERATION SUCCESSFULLY COMPLETED
00	14	AUDIO PLAY OPERATION STOPPED DUE TO ERROR
00	15	NO CURRENT AUDIO STATUS TO RETURN
00	17	CLEANINF REQUESTED
01	00	NO INDEX/SECTOR SIGNAL
02	00	NO SEEK COMPLETE
04	00	LOGICAL UNIT NOT READY, CAUSE NOT REPORTABLE
04	01	LOGICAL UNIT IS IN PROCESS OF BECOMING READY
04	02	LOGICAL UNIT NOT READY, INITIALIZING CMD. REQUESTED
04	03	LOGICAL UNIT NOT READY, MANUAL INTERVENTION REQUIRED
04	07	LOGICAL UNIT NOT READY, OPERATION IN PROGRESS
05	00	LOGICAL UNIT DOES NOT RESPOND TO SELECTION
06	00	NO REFERENCE POSITION FOUND (medium may be upside down)
08	00	LOGICAL UNIT COMMUNICATION FAILURE
08	01	LOGICAL UNIT COMUUNICATION TIME-OUT
08	02	LOGICAL UNIT COMMUNICATION PARITY ERROR
08	03	LOGICAL UNIT COMMUNICATION CRC ERROR (ULTRA-DMA/32)
09	00	TRACK FOLLOWING ERROR
09	01	TRACKING SERVO FAILURE
09	02	FOCUS SERVO FAILURE
09	03	SPINDLE SERVO FAILURE
0A	00	ERROR LOG OVERFLOW
0B	00	WARNING
0B	01	WARNING-SPECIFIED TEMPERATURE EXCEEDED
0B	02	WARNING-ENCLOSURE DEGRADED
10	00	ID CRC OR ECC ERROR
11	01	UNRECOVERED READ ERROR
11	02	ERROR TOO LONG TO CORRECT
11	05	L-EC UNCORRECTABLE ERROR
11	06	CIRC UNRECOVERED ERROR
11	0F	ERROR READING UPC/EAN NUMBER
11	10	ERROR – LOSS PF STREAMING
12	00	ADDRESS MARK NOT FOUND FOR ID FIELD
13	00	ADDRESS MARK NOT FOUND FOR DATA FIELD
14	01	RECORD NOT FOUND
14	05	RECORD NOT FOUND – RECOMMEND REASSIGNMENT
14	06	RECORD NOT FOUND – DATA AUTO – REALLOCATED
15	00	RANDOM POSITIONING ERROR
15	01	MECHANICAL POSITIONING ERROR
15	02	POSITIONING ERROR DETECTED BY READ OF MEDIUM
17	00	RECOVERED DATA WITH NO EEOR CORRECTION APPLIED
17	01	RECOVERED DATA WITH RETRIES
17	02	RECOVERED DATA WITH POSITIVE HEAD OFFSET
17	03	RECOVERED DATA WITH NEGATIVE HEAD OFFSET
17	04	RECOVERED DATA WITH RETIES AND/OR CIRC APPLIED
17	05	RECOVERED DATA USING PREVIOUS SECTOR ID
18	00	RECOVERED DATA WITH ERROR CORRECTION APPLIED
18	01	RECOVERED DATA WITH ERROR CORP. & RETRIES APPLIED
18	03	RECOVERED DATA WITH CIRC
18	04	RECOVERED DATA WITH L-EC
1A	00	PARAMETER LIST LENGTH ERROR
1B	00	SYNCHRONOUS DATA TRANSFER ERROR
1E	00	RECOVERED ID WITH ECC CORRECTION

20	00	INVALID COMMAND OPERATION CODE
21	00	LOGICAL BLOCK ADDRESS OUT OF RANGE
24	00	INVALID FIELD IN CDB
25	00	LOGICAL UNIT NOT SUPPORTED
26	00	INVALID FIELD IN PARAMETER LIST
26	01	PARAMETER NOT SUPPORTED
26	02	PARAMETER VALUE INVALID
26	03	THRESHOLD PARAMETERS NOT SUPPORTED
26	04	INVALID RELEASE OF ACTIVE PERSISTENT RESERVATION
28	00	NOT READY TO READY CHANGE, MEDIUM MAY HAVE CHANGED
29	00	POWER ON, RESET, OR BUS DEVICE RESET OCCURRED
29	01	POWER ON OCCURRED
29	02	SCSI BUS RESET OCCURRED
29	03	BUS DEVICE RESET FUNCTION OCCURRED
29	04	DEVICE INTERNAL RESET
2A	00	PARAMETERS CHANGED
2A	01	MODE PARAMETERS CHANGED
2A	02	LOG PARAMETERS CHANGED
2A	03	RESERVATIONS PREEMPTED
2B	00	COPY CANNOT EXECUSE SINCE HOST CANNOT DISCONNECT
2C	00	COMMAND SEQUENCE ERROR
2C	05	PERSISTENT PREVENT CONFLICT
2F	00	COMMANDS CLEARED BY ANOTHER INITIATOR
30	00	INCOMPATIBLE MEDIUM INSTALLED
30	01	CANNOT READ MEDIUM - UNKNOWN FORMAT
30	02	CANNOT READ MEDIUM – INCOMPATIBLE FORMAT
30	03	CLEASNING CARTRIDGE INSTALLED
35	00	ENCLOSURE SERVICES FAILURE
35	01	UNSUPPORTED ENCLOSURE FUNCTION
35	02	ENCLOSURE SERVICES UNAVAILABLE
35	03	ENCLOSURE SERVICES TRANSFER FAILURE
35	04	ENCLOSURE SERVICES TRANSFER REFUSED
39	00	SAVING PARAMETERS NOT SUPPORTED
3A	00	MEDIUM NOT PRESENT
3A	01	MEDIUM NOT PRESENT-TRAY CLOSED
3A	02	MEDIUM NOT PRESENT-TRAY OPEN
3B	0F	END OF MEDIUM REACHED
3B	11	MEDIUM MAGAZINE NOT ACCESSIBLE
3B	12	MEDIUM MAGAZINE REMOVED
3B	13	MEDIUM MAGAZINE INSERTED
3B	14	MEDIUM MAGAZINE LOCKED
3B	15	MEDIUM MAGAZINE UNLOCKED
3B	16	MECHANICAL POSITIONING OR CHANGER ERROR
3D	00	INVALID BITS IN IDENTIFY MESSAGE
3E	00	LOGICAL UNIT HAS NOT SELF-CONFIGURED YET
3E	01	LOGICAL UNIT FAILURE
3E	02	TIMEOUT ON LOGICAL UNIT
3F	00	TARGET OPERATING CONDITIONS HAVE CHANGED
3F	01	MICROCODE HAS BEEN CHANGED
3F	02	CHANGED OPERATING DEFINITION
3F	03	INQUIRY DATA HAS CHANGED
40	NN	DIAGNOSTIC FAILURE ON COMPONENT NN (80H-FFH)
43	00	MESSAGE ERROR
44	00	INTERNAL TARGET FAILURE
45	00	SELECT OR RESELECT FAILURE
46	00	UNSUCCESSFUL SOFT RESET
47	00	SCSI PARITY ERROR
48	00	INITIATOR DETECTED ERROR MESSAGE RECEIVED
49	00	INVALID MESSAGE ERROR
4A	00	COMMAND PHASE ERROR
4B	00	DATA PHASE ERROR
4C	00	LOGICAL UNIT FAILED SELF-CONFIGURATION

4D	NN	TAGGED OVERLAPPED COMMANDS (NN=QUEUE TAG)
4E	00	OVAERLAPPED COMMANDS ATTEMPTED
53	00	MEDIA LOAD OR EJECTED FAILED
53	02	MEDIUM REMOVAL PREVENTED
55	00	SYSTEM RESOURCE FAILURE
57	00	UNABLE TO RECOVER TABLE-OF-CONTENTS
5A	00	OPERATOR REQUEST OR STATE CHANGE INPUT
5A	01	OPERATOR MEDIUM REMOVAL REQUEST
5B	00	LOG EXCEPTION
5B	01	THRESHOLD CONDITION MET
5B	02	LOG COUNTER AT MAXIMUM
5B	03	LOG LIST CODES EXHAUSTED
5D	00	FAILURE PREDICTION THRESHOLD EXCEEDED - Predicted Logical Unit Failure
5D	01	FAILURE PREDICTION THRESHOLD EXCEEDED - Predicted Media Failure
5D	FF	FAILURE PREDICTION THRESHOLD EXCEEDED (FALSE)
5E	00	LOW POWER CONDITION ON
5E	01	IDLE CONDITION ACTIVATED BY TIMER
5E	02	STANDBY CONDITION ACTIVATED BY COMMAND
5E	03	IDLE CONDITION ACTIVATED BY COMMAND
5E	04	STANDBY CONDITION ACTIVATED BY COMMAND
63	00	END OF USER AREA ENCOUNTERED ON THIS TRACK
63	01	PACKET DOES NOT FIT IN AVAILABLE SPACE
64	00	ILLEGAL MODE FOR THIS TRACK
65	00	VOLTAGE FAULT
73	00	CD CONTROL ERROR
80	xx	VENDOR SPECIFIC

Write Errors

ASC	ASCQ	Description
00	00	NO ADDITIONAL SENSE INFORMATION
00	06	I/O PROCESS TERMINATED, PLAY OPERATION ABORTED
00	11	AUDIO PLAY OPERATION IN PROGRESS
00	12	AUDIO PLAY OPERATION PAUSED
00	13	AUDIO PLAY OPERATION SUCCESSFULLY
00	14	AUDIO PLAY OPERATION STOPPED DUE TO ERRPOR
00	15	NO CURRENT AUDIO STATUS TO RETURN
02	00	NO SEEK COMPLETE
04	00	LOGICAL UNIT NOT READY, CAUSE NOT REPORTABLE
04	01	LOGICAL UNIT IS IN PROCESS OF BECOMING READY
04	02	LOGICAL UNIT NOT READY, INITIALIZING CMD. REQUIRED
04	03	LOGICAL UNIT NOT READY, MANUAL INTERVENTION REQUIRED
04	04	LOGICAL UNIT NOT READY, FORMAT IN PROGRESS
04	07	LOGICAL UNIT NOT READY, OPERATION IN PROGRESS
04	08	LOGICAL UNIT NOT READY, LONG WRITE IN PROGRESS
05	00	LOGICAL UNIT DOES NOT RESPOND TO SELECTION
06	00	NO REFERENCE POSITION FOUND
08	00	LOGICAL UNIT COMMUNICATION FAILURE
08	01	LOGICAL UNIT COMUUNICATION TIME-OUT
08	02	LOGICAL UNIT COMMUNICATION PARITY ERROR
08	03	LOGICAL UNIT COMMUNICATION CRC ERROR (ULTRA-DMA/32)
09	00	TRACK FOLLOWING ERROR
09	01	TRACKING SERVO FAILURE
09	02	FOCUS SERVO FAILURE
09	03	SPINDLE SERVO FAILURE
0A	00	ERROR LOG OVERFLOW
0B	00	WARNING
0B	01	WARNING-SPECIFIED TEMPERATURE EXCEEDED
0B	02	WARNING-ENCLOSURE DEGRADED
0C	00	WRITE ERROR
0C	02	WRITE ERROR-RECOVERED WITH AUTO REALLOCATION

0C	03	WRITE ERROR-RECOMMEND REASSIGNMENT
0C	07	WRITE ERROR-RECOVERY NEEDED
0C	08	WRITE ERROR-RECOVERY FAILED
0C	09	WRITE ERROR-LOSS OF STREAMING
0C	0A	WRITE ERROR-PADDING BLOCKS ADDED
11	00	UNRECOVERED READ ERROR
11	06	CIRC UNRECOVERED ERROR
15	00	RANDOM POSITIONING ERROR
15	01	MECHANICAL POSITIONING ERROR
15	02	POSITIONING ERROR DETECTED BY READ OF MEDIUM
16	00	DATA SYNCHRONIZATION MARK ERROR
16	01	DATA SYNC ERROR-DATA REWRITTEN
16	02	DATA SYNC ERROR-RECOMMEND REWRITE
16	03	DATA SYNC ERROR-DATA ATUO-REALLOCATED
16	04	DATA SYNC ERROR-RECOMMEND REASSIGNMENT
17	00	RECOVERED DATA WITH NO ERROR CORRECTION APPLIED
17	01	RECOVERED DATA WITH RETRIES
17	02	RECOVERED DATA WITH POSITIVE HEAD OFFSET
17	03	RECOVERED DATA WITH NEGATIVE HEAD OFFSET
17	04	RECOVERED DATA WITH RETRIES AND/OR CIRC APPLIED
17	05	RECOVERED DATA USING PREVIOUS SECTOR ID
17	06	RECOVERED DATA WITHOUT ECC - DATA AUTO-REALLOCATED
17	07	RECOVERED DATA WITHOUT ECC - RECOMMEND REASSIGNMENT
17	08	RECOVERED DATA WITHOUT ECC - RECOMMEND REWRITE
17	09	RECOVERED DATA WITHOUT ECC - DATA REWRITTEN
18	00	RECOVERED DATA WITH ERROR CORRECTION APPLIED
18	01	RECOVERED DATA WITH ERROR CORR. & RETRIES APPLIED
18	02	RECOVERED DATA - DATA AUTO-REALLOCATED
18	03	RECOVERED DATA WITH CIRC
18	04	RECOVERED DATA WITH L-EC
18	05	RECOVERED DATA - RECOMMEND REASSIGNMENT
18	06	RECOVERED DATA - RECOMMEND REWRITE
18	07	RECOVERED DATA WITH ECC - DATA REWRITTEN
19	00	DEFECT LIST NOT ERROR
19	01	DEFECT LIST NOT AVAILABLE
19	02	DEFECT LIST ERROR IN PRIMARY LIST
19	03	DEFECT LIST ERROR IN GROWN LIST
1A	00	PARAMETER LIST LENGTH ERROR
1B	00	SYNCHRONOUS DATA TRANSFER ERROR
1C	00	DEFECT LIST NOT FOUND
1C	01	PRIMARY DEFECT LIST NOT FOUND
1C	02	GROWN DEFECT LIST NOT FOUND
1D	00	MISCOMPARE DURING VERIFY OPERATION
20	00	INVALID COMMAND OPERATION CODE
21	00	LOGICAL BLOCK ADDRESS OUT OF RANGE
21	02	INVALID ADDRESS FOR WRITE
24	00	INVALID FIELD IN CDB
25	00	LOGICAL UNIT NOT SUPPORTED
26	00	INVALID FIELD IN PARAMETER LIST
26	01	PARAMETER NOT SUPPORTED
26	02	PARAMETER VALUE INVALID
26	03	THRESHOLD PARAMETERS NOT SUPPORTED
26	04	INVALID RELEASE OF ACTIVE PERSISTENT RESERVATION
27	00	WRITE PROTECTED
27	01	HARDWARE WRITE PROTECTED
27	02	LOGICAL UNIT SOFTWARE WRITE PROTECTED
27	03	ASSOCIATED WRITE PROTECT
27	04	PERSISTENT WRITE PROTECT
27	05	PERSISTENT WRITE PROTECT
27	06	CONDITIONAL WRITE PROTECT
28	00	NOT READY TO READY CHANGE, MEDIUM MAY HAVE CHANGED
29	00	POWER ON, RESET, OR BUS DEVICE RESET OCCURRED

29	01	POWER ON OCCURRED
29	02	SCSI BUS RESET OCCURRED
29	03	BUS DEVICE RESET FUNCTION OCCURRED
29	04	DEVICE INTERNAL RESET
2A	00	PARAMETERS CHANGED
2A	01	MODE PARAMETERS CHANGED
2A	02	LOG PARAMETERS CHANGED
2A	03	RESERVATIONS PREEMPTED
2B	00	COPY CANNOT EXECUSE SINCE HOST CANNOT DISCONNECT
2C	00	COMMAND SEQUENCE ERROR
28	00	NOT READY TO READY CHANGE, MEDIUM MAY HAVE CHANGED
29	00	POWER ON, RESET, OR BUS DEVICE RESET OCCURRED
2A	00	PARAMETERS CHANGED
2A	01	MODE PARAMETERS CHANGED
2C	00	COMMAND SEQUENCE ERROR
2C	03	CURRENT PROGRAM AREA IS NOT EMPTY
2C	04	CURRENT PROGRAM AREA IS EMPTY
2C	05	PERSISTENT PREVENT CONFLICT
2E	00	INSUFFICIENT TIME FOR OPERATION
2F	00	COMMANDS CLEARED BY ANOTHER INITIATOR
30	00	INCOMPATIBLE MEDIUM INSTALLED
30	01	CANNOT READ MEDIUM - UNKNOWN FORMAT
30	02	CANNOT READ MEDIUM - INCOMPATIBLE FORMAT
30	05	CANNOT WRITE MEDIUM - INCOMPATIBLE FORMAT
30	06	CANNOT FORMAT MEDIUM - INCOMPATIBLE MEDIUM
30	08	CANNOT WRITE - APPLICATION CODE MISMATCH
30	09	CURRENT SESSION NOT FIXATED FOR APPEND
31	00	MEDIUM FORMAT CORRUPTED
31	01	FORMAT COMMAND FAILED
32	00	NO DEFECT SPARE LOCATION AVAILABLE
32	01	DEFECT LIST UPDATE FAILURE
35	00	ENCLOSURE SERVICES FAILURE
35	01	UNSUPPORTED ENCLOSURE FUNCTION
35	02	ENCLOSURE SERVICES UNAVAILABLE
35	03	ENCLOSURE SERVICES TRANSFER FAILURE
35	04	ENCLOSURE SERVICES TRANSFER REFUSED
37	00	ROUNDED PARAMETER
39	00	SAVING PARAMETERS NOT SUPPORTED
3A	00	MEDIUM NOT PRESENT
3A	01	MEDIUM NOT PRESENT - TRAY CLOSED
3A	02	MEDIUM NOT PRESENT - TRAY OPEN
3D	00	INVALID BITS IN IDENTIFY MESSAGE
3E	00	LOGICAL UNIT HAS NOT SELF-CONFIGURED YET
3E	01	LOGICAL UNIT FAILURE
3E	02	TIMEOUT ON LOGICAL UNIT
3F	00	TARGET OPERATING CONDITIONS HAVE CHANGED
3F	01	MICROCODE HAS BEEN CHANGED
3F	02	CHANGED OPERATING DEFINITION
3F	03	INQUIRY DATA HAS CHANGED
40	NN	DIAGNOSTIC FAILURE ON COMPONENT NN (80H-FFH)
43	00	MESSAGE ERROR
44	00	INTERNAL TARGET FAILURE
45	00	SELECT OR RESELECT FAILURE
46	00	UNSUCCESSFUL SOFT RESET
47	00	SCSI PARITY ERROR
48	00	INITIATOR DETECTED ERROR MESSAGE RECEIVED
49	00	INVALID MESSAGE ERROR
4A	00	COMMAND PHASE ERROR
4B	00	DATA PHASE ERROR
4C	00	LOGICAL UNIT FAILED SELF-CONFIGURATION
4D	NN	TAGGED OVERLAPPED COMMANDS (NN=QUEUE TAG)
4E	00	OVAERLAPPED COMMANDS ATTEMPTED

51	00	ERASE FAILURE
51	01	ERASE FAILURE - Incomplete erase operation detected
53	00	MEDIA LOAD OR EJECT FAILED
53	02	MEDIUM REMOVAL PREVENTED
55	00	SYSTEM RESOURCE FAILURE
57	00	UNABLE TO RECOVER TABLE-OF-CONTENTS
5A	00	OPERATOR REQUEST OR STATE CHANGE INPUT
5A	01	OPERATOR MEDIUM REMOVAL REQUEST
5A	02	OPERATOR SELECTED WRITE PROTECT
5A	03	OPERATOR SELECTED WRITE PERMIT
5B	00	LOG EXCEPTION
5B	01	THRESHOLD CONDITION MET
5B	02	LOG COUNTER AT MAXIMUM
5B	03	LOG LIST CODES EXHAUSTED
5D	00	FAILURE PREDICTION THRESHOLD EXCEEDED -
5D	01	FAILURE PREDICTION THRESHOLD EXCEEDED - Predicted Media Failure
5D	03	FAILURE PREDICTION THRESHOLD EXCEEDED - Predicted Spare Area Exhaustion
5D	FF	FAILURE PREDICTION THRESHOLD EXCEEDED (FALSE)
5E	00	LOW POWER CONDITION ON
5E	01	IDLE CONDITION ACTIVATED BY TIMER
5E	02	STANDBY CONDITION ACTIVATED BY COMMAND
5E	03	IDLE CONDITION ACTIVATED BY COMMAND
5E	04	STANDBY CONDITION ACTIVATED BY COMMAND
63	00	END OF USER AREA ENCOUNTERED ON THIS TRACK
64	00	ILLEGAL MODE FOR THIS TRACK
64	01	INVALID PACKET SIZE
65	00	VOLTAGE FAULT
72	00	SESSION FIXATION ERROR
72	01	SESSION FIXATION ERROR WRITING LEAD-IN
72	02	SESSION FIXATION ERROR WRITING LEAD-OUT
72	03	SESSION FIXATION ERROR - INCOMPATIBLE TRACK IN SESSION
72	04	EMPTY OR PARTIALLY WRITTEN RESERVED TRACK
72	05	NO MORE RZONE RESERVATIONS ARE ALLOWED
73	00	CD CONTROL ERROR
73	01	POWER CALIBRATIOIN AREA ALMOST FULL
73	02	POWER CALIBRATION AREA IS FULL
73	03	POWER CALIBRATION AREA ERROR
73	04	PROGRAM MEMORY AREA UPDATE FAILURE
73	05	PROGRAM MEMORY AREA/RMA IS FULL
73	06	PROGRAM MEMORY AREA/RMA IS (almost) FULL
B6	00	MEDIA LOAD/EJECT MECHANISM FAILED
B9	00	PLAY OPERATION ABORTED
80	FF	VENDOR SPECIFIC

Specifications

Recorder Drive:	CD-R/RW Recorder
Power Source:	115V/230V 50-60Hz switchable power supply
Weight:	58 pounds
Dimensions:	7.48” (W) x 16.75” (D) x 24.5” (H)
Power supply:	400W
Environment:	Temperature: 40°C (104°F) / 5°C (41°F) Humidity: 20% - 80%

Supported Formats

Recording format	CD	CD-ROM Mode 1, CD-ROM XA Mode 2 (form 1, form 2), Photo CD, CD-DA (Audio CD), CD-Extra, CD-R, CD-RW
Recording capacity (nominal)	CD	700MB
Applicable media	CD	CD-R, CD-RW

Firmware Updates

Occasionally it may be necessary to load updated firmware on to the CWT Pro Series duplicator. Only those firmware versions recommended and provided by Microboards Technical Support for this specific product should be installed. Installation of an incorrect firmware on any Microboards Technology product may result in any remaining warranty being voided.

Technical Support

For technical questions or support issues, contact Microboards Technology technical support:

United States
PH: 952-556-1639
FAX: 952-556-1628
support@microboards.com
www.microboards.com

Europe
PH: +44 (0) 845 230 7800
www.microboards.co.uk

Japan
PH: 03-3561-2266
www.microboards.co.jp

Please have the Model and Serial Number of your duplicator available when contacting Technical Support.

Tower Models

Any unauthorized modification to this equipment may result in the revocation by the FCC of the user's authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and antenna
- Connect the equipment into an outlet on a circuit different than that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

This product is in conformity with the EMC Directive (89/336/EEC) through compliance with the following European standards: EN 55022, EN 55024. The CE mark has been affixed in accordance with the CE Marking Directive 93/68/EEC.

Canadian Department of Communications (DOC) Statement

This Class B digital apparatus complies with the Canadian ICES-003 Issue 4:2004. Cet appareil numerique de la classe B est conforme a la norme NMB-003 du Canade.

Rackmount Models

Any unauthorized modification to this equipment may result in the revocation by the FCC of the user's authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

This product is in conformity with the EMC Directive (89/336/EEC) through compliance with the following European standards: EN 55022, EN 55024. The CE mark has been affixed in accordance with the CE Marking Directive 93/68/EEC.

Canadian Department of Communications (DOC) Statement

This Class A digital apparatus complies with the Canadian ICES-003 Issue 4:2004. Cet appareil numerique de la classe A est conforme a la norme NMB-003 du Canade.